

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Precision Airmotive Corporation

Washington Manufacturing Services

Precision Airmotive Improves Workplace Safety

Client Profile:

Precision Airmotive Corporation is a world leader in the engineering and manufacturing of aviation piston engine fuel controls and other fuel-related parts. The company's products and services include factory-new products for carburetors and fuel injection systems as well as factory-certified rebuild and overhaul services. Precision Airmotive supplies engine manufacturers, repair stations, and distributors worldwide. The company, founded in 1963, is headquartered in Arlington, Washington, and employs approximately 65 people. Precision Airmotive is a business unit of the larger Precision Aerospace Corporation group headquartered in Kirkland, Washington.

Situation:

Precision Airmotive recently purchased a small, modular, explosion-proof building in which to test carburetors. Technicians place various carburetor floats into a stand comprised of six stations that test the carburetor floats in different types of fuel. Since this process involves volatile fuels, extreme temperatures, and atmospheric pressures, the company was concerned for the safety of its technicians as well as for the environment. Precision Airmotive asked Washington Manufacturing Services (WMS), a NIST MEP network affiliate, for help in addressing these concerns.

Solution:

WMS contracted with a company that specializes in this type of assistance. This company conducted a baseline breathing zone air quality test for several chemical compounds used in the testing of the carburetor floats. It also monitored and assessed the decibel level in the explosion-proof building, performed a Material Safety Data Sheet (MSDS) analysis to determine employee exposure risk, and analyzed the job hazard risks of a worst case scenario. WMS and the company presented its findings to Precision Airmotive. The 11-page report detailed the company's situation, scope of work, testing parameters and conditions, analytical methods, testing results, safety/environmental recommendations, and conclusions. Air monitoring tests indicated that employee exposures are below established WISHA/OSHA regulatory limits; existing ventilation methods and engineering controls are limiting employee exposures. Noise data also demonstrated that the decibel level is below the established regulatory limits, concluding that no further action by the company is required in this area. The MSDS analysis recommended that employees utilize proper

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personal protective equipment--such as safety glasses, chemical resistant gloves, chemical resistant aprons, and an emergency eye wash station--within the testing facility.

Results:

Reassured workers and plant managers that safety protocols provide adequate worker protection.

Took extra steps to ensure the safety and well-being of employees and the environment.

Testimonial:

"I contacted Washington Manufacturing Services for assistance in helping us set up our new explosion-proof test building and [shared] the concerns we had regarding employee safety and some environmental issues. They brought in an organization with the expertise and experience necessary to properly address our concerns.... The services provided exceeded my expectations."

Jared LaFave, Project Engineer